PATENT COOPERATION TREATY

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			Date of malling (day/month/year)	see form PCT/IS	SA/210 (second	d sheet)	
Applicant's or agent's file see form PCT/ISA/22	reference 20		FOR FURTHEF See paragraph 2 be	R ACTION How			
nternational application N	No.	International filing date (d 20.01.2004	day/month/year)	Priority da	te (day/month/y	rear)	
nternational Patent Class	sification (IPC) or 0/00, C08J5/24	both national classification, B29C70/08, C08K5/0	and IPC				
Applicant HEXCEL COMPOS							
1. This opinion co	ntains indicat	ions relating to the fol	lowing items:				
	Basis of the o	•					
⊠ Box No. I	Priority	pinon .				•	
⊠ Box No. II □ Box No. III	Non-actablish	ment of opinion with reg	ard to novelty, inve	ntive step and	d industrial ap	plicability	
	Lack of unity						
☐ Box No. IV 図 Box No. V	Deserved etc	atement under Rule 43bi citations and explanation	s.1(a)(l) with regard as supporting such s	I to novelty, in statement	nventive step	or industrial	
☐ Box No. VI	Certain docu						
☐ Box No. VII	Certain defec	ts in the international ap	plication				
		rvations on the internation					
2. FURTHER ACT	TION ·				•		
written opinion	of the Internation nooses an Auth Ureau under Ru	reliminary examination is onal Preliminary Examini ority other than this one le 66.1 <i>bis</i> (b) that written	to be the IDEA and	the chosen If	PEA has notife	ed the	
If this opinion is submit to the II months from the whichever exp	PEA a written re le date of mailin	bove, considered to be a ply together, where app g of Form PCT/ISA/220	a written opinion of ropriate, with amen or before the expira	the IPEA, the dments, befor tion of 22 mo	applicant is I re the expirati nths from the	nvited to ion of three priority date,	
For further opt							
3. For further det	ails, see notes t	o Form PCT/ISA/220.					
Name and mailing add	ress of the ISA:		Authorized Offic	er		-seches	T stoman

Zeslawski, W

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European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465

International application No. PCT/IB2004/000944

	Box No	. I Basis of the opinion
1.	the land	gard to the language , this opinion has been established on the basis of the international application in juage in which it was field, unless otherwise indicated under this item.
	☐ Thi	s opinion has been established on the basis of a translation from the original language into the following guage , which is the language of a translation furnished for the purposes of international search der Rules 12.3 and 23.1(b)).
2.	With re	gard to any nucleotide and/or amino acid sequence disclosed in the international application and ary to the claimed invention, this opinion has been established on the basis of:
	a. type	of material:
		a sequence listing
		table(s) related to the sequence listing
	b. form	nat of material:
		in written format
	Ö	in computer readable form
	c. time	of filing/furnishing:
		contained in the international application as filed.
		filed together with the international application in computer readable form.
		furnished subsequently to this Authority for the purposes of search.
	t	n addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional hopies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
	Λ Δddi	ional comments:

International application No. PCT/IB2004/000944

Box No. II Priority			
□ The following document has	not been furnished:		
⊠ copy of the earlier a	oplication whose prio	rity has been claimed (R	ule 43 <i>bis</i> .1 and 66.7(a)).
☐ translation of the ea	rlier application whos	se priority has been claim	ned (Rule 43 bis.1 and 66.7(b)).
Consequently it has not been nevertheless been establish	en possible to considented on the assumption	er the validity of the prior on that the relevant date i	ity claim. This opinion has s the claimed priority date.
	olished as if no priori	ty had been claimed due Thus for the purposes o	to the fact that the priority claim of this opinion, the international
Additional observations, if neces	ssary:		
·			nevelty Inventive step of
Box No. V Reasoned states industrial applicability; citation	nent under Rule 43	bis.1(a)(i) with regard to as supporting such stat	o novetty, inventive step or tement
	JIIS WILL ON PROPERTY		
Statement			•
Novelty (N)	Yes: Claims	1-23	
·	No: Claims		
Inventive step (IS)	Yes: Claims	1-23	
	No: Claims		
Industrial applicability (IA)	Yes: Claims No: Claims	1-23	
2. Citations and explanations			
see separate sheet		•	

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (SEPARATE SHEET)

International application No.

PCT/IB2004/000944

Reference is made to the following documents:

D1: US-A-5 166 229 (NAKANO TAKAHIRO ET AL) 24 November 1992 (1992-11-24)

D2: EP-A-1 300 507 (HEXCEL COMPOSITES LTD) 9 April 2003 (2003-04-09)

D3: EP-A-1 338 406 (HEXCEL COMPOSITES LTD) 27 August 2003 (2003-08-27)

D4: US-A-3 666 615 (YAMAZAKI KAZUKIYO ET AL) 30 May 1972 (1972-05-30)

Concerning Point V:

Novelty (Art.33(2) PCT)

Document D1 discloses en epoxy resin gel composition comprising an urethanemodified bisphenol A type epoxy resin, a gelation agent, and a curing agent. The said epoxy resin composition forms one-pack thermosetting adhesives.

Document D2 discloses a fibre reinforced resin assembly, wherein a curing agent is uniformly dispersed in a crystalline epoxy resin.

Document D3 discloses a preform composite comprising a layer of a fibrous reinforcing material having on opposite surfaces thereof two different thermosetting resin layers. Document D4 discloses a composite layer sheet material, wherein a thermosetting resin layer and a hardening agent layer are separated by a contact preventive film layer which melts on heating and allows thermosetting resin to be cured.

The subject matter of claims 1-23 is regarded as being novel, since none of the cited documents discloses a resin composition comprising liquid and solid thermosetting resins and gelation agent as claimed in the present application.

Inventive Step (Art.33(3) PCT)

Document D1 is considered to represent the closest prior art. The subject matter of the present application is distinguishing from the closest prior art by the use of an additional thermosetting resin, which is dispersed in the gelled liquid thermosetting resin.

There appears to be, however no particular technical effect over prior art connected to this distinguishing feature. Therefore, the objective technical problem was to provide an alternative composition.

In the absence of any evidence, that the presence of an additional thermoplastic resin solves any technical problem in an unexpected manner, it seems to be that the subject matter of claim 1 of the present application is a routine modification of the resin composition of D1.

Miscellaneous

The wordings: "is present in a sufficient amount to form ... than said low viscosity state"

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (SEPARATE SHEET)

International application No.

PCT/IB2004/000944

of claims 1, 7 and 19; and the last par. of claim 7 are not regarded as being technical features, but merely as corresponding results to be achieved (Art.6 PCT). It appears to be possible to define the subject matter in more concrete terms, vis in terms of how the effect to be achieved.

PATENT COOPERATION TREATY

Applicant's or agent's file reference see form PCT/ISA/220 International application No. PCT/IB2004/000944 International Patent Classification (IPC) or both national classification and IF C08L63/00, C08G59/00, C08J5/24, B29C70/08, C08K5/00 Applicant HEXCEL COMPOSITES, LTD. 1. This opinion contains indications relating to the following Box No. II Priority Box No. II Priority Box No. III Non-establishment of opinion with regard to Box No. IV Lack of unity of Invention Box No. V Reasoned statement under Rule 43bis.1(a) applicability; citations and explanations supplies a priority contains and explanations supplies to the following applicability; citations and explanations supplies to the following applies	·
Applicant's or agent's file reference see form PCT/ISA/220 International application No. PCT/IB2004/000944 International Patent Classification (IPC) or both national classification and IF C08L63/00, C08G59/00, C08J5/24, B29C70/08, C08K5/00 Applicant HEXCEL COMPOSITES, LTD. 1. This opinion contains indications relating to the following Box No. II Priority Box No. II Priority Box No. III Non-establishment of opinion with regard to Box No. IV Lack of unity of Invention Box No. V Reasoned statement under Rule 43bis.1(a) applicability; citations and explanations supplicability; citations and explanations supplicability.	(PCT Rule 43bis.1) of malling (month/year) see form PCT/ISA/210 (second sheet) R FURTHER ACTION paragraph 2 below nth/year) Priority date (day/month/year)
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 □ Box No. VII Certain defects in the international applicat □ Box No. VIII Certain observations on the international a 2. FURTHER ACTION If a demand for international preliminary examination is mad written opinion of the International Preliminary Examining Authe applicant chooses an Authority other than this one to be International Bureau under Rule 66.1 bis(b) that written opiniwill not be so considered. If this opinion is, as provided above, considered to be a writt submit to the IPEA a written reply together, where appropriamonths from the date of mailing of Form PCT/ISA/220 or betwhichever expires later. For further options, see Form PCT/ISA/220. 3. For further details, see notes to Form PCT/ISA/220. 	o novelty, inventive step and industrial applicability (i) with regard to novelty, inventive step or industrial porting such statement ion oplication e, this opinion will usually be considered to be a athority ("IPEA"). However, this does not apply where the IPEA and the chosen IPEA has notified the ons of this International Searching Authority en opinion of the IPEA, the applicant is invited to
Name and mailing address of the ISA:	Authorized Officer

European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465

Zeslawski, W

Telephone No. +49 89 2399-7159



International application No. PCT/IB2004/000944

_	Box No. I Basis of the opinion
١.	With regard to the language, this opinion has been established on the basis of the international application in the language in which it was field, unless otherwise indicated under this item.
	This opinion has been established on the basis of a translation from the original language into the following language, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
<u>2</u> .	With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
	a. type of material:
	□ a sequence listing
	☐ table(s) related to the sequence listing
	b. format of material:
	☐ in written format
	in computer readable form
	c. time of filing/furnishing:
	☐ contained in the international application as filed.
	☐ filed together with the international application in computer readable form.
	☐ furnished subsequently to this Authority for the purposes of search.
3	In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4	4. Additional comments:

International application No. PCT/IB2004/000944

Box No. II Priority	
☑ The following document has	s not been furnished:
□ copy of the earlier a	pplication whose priority has been claimed (Rule 43bis.1 and 66.7(a)).
☐ translation of the ea	rrlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b
	en possible to consider the validity of the priority claim. This opinion has hed on the assumption that the relevant date is the claimed priority date.
has been found invalid (RII	blished as if no priority had been claimed due to the fact that the priority class 43 bis. 1 and 64.1). Thus for the purposes of this opinion, the internation is considered to be the relevant date.
filing date indicated above	is considered to be the volovality date.
filing date indicated above	·
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filing date indicated above Additional observations, if nece	·
filing date indicated above Additional observations, if nece	ssary:
filing date indicated above Additional observations, if nece	ssary:
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Additional observations, if necessary and state industrial applicability; citati	ment under Rule 43 <i>bis</i> .1(a)(i) with regard to novelty, inventive step or ons and explanations supporting such statement Yes: Claims 1-23
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see separate sheet

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Document D1 is considered to represent the closest prior art. The subject matter of the present application is distinguishing from the closest prior art by the use of an additional thermosetting resin, which is dispersed in the gelled liquid thermosetting resin.

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Miscellaneous

The wordings: "is present in a sufficient amount to form ... than said low viscosity state"

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (SEPARATE SHEET)

International application No.

PCT/IB2004/000944

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